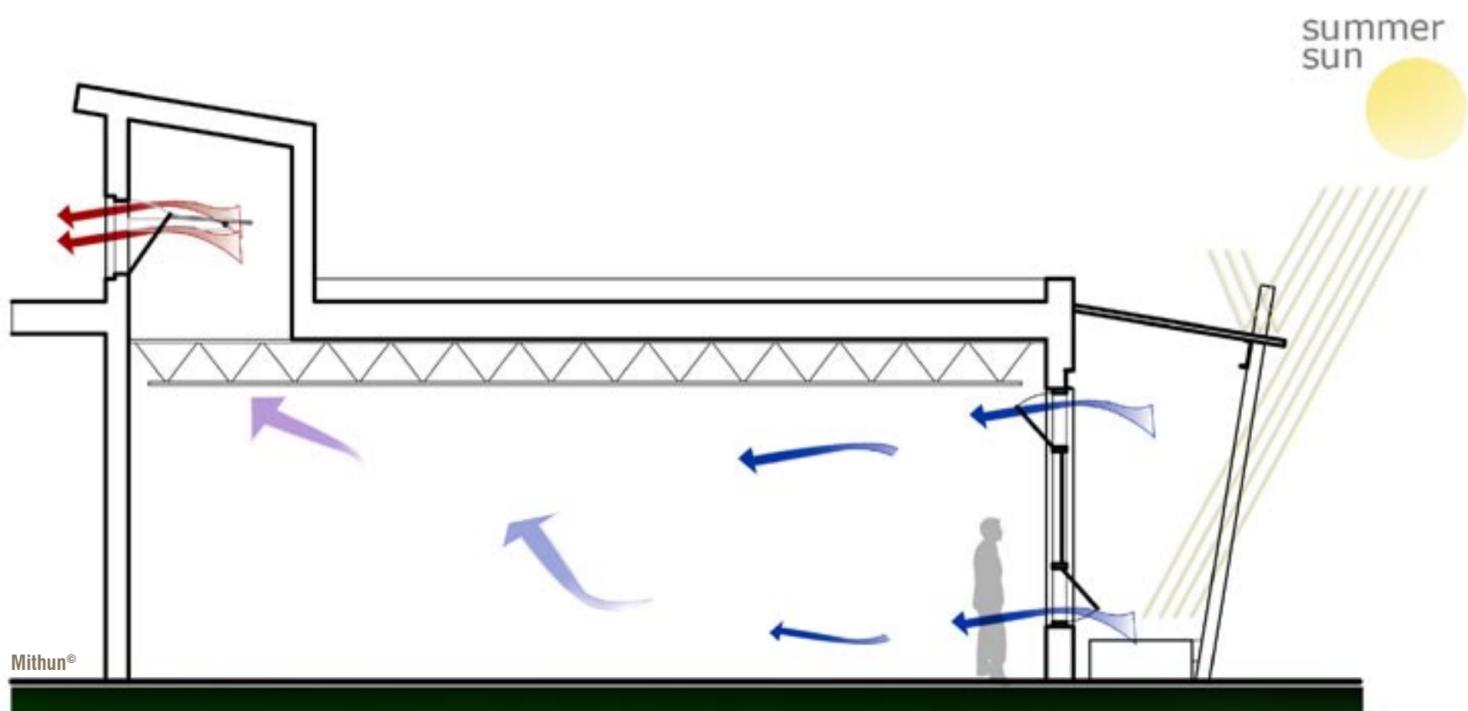


MULTIPURPOSE ROOM: Sustainable Strategies



YESLER COMMUNITY CENTER



* Multipurpose Room:

Canopies on the south deck offer protection from summer sun. Operable windows to the south and a high roof monitor to the north allow breezes and warm air to flow out through the roof.

Daylighting: Using sunlight to save energy

If you turn off the lights in the middle of the day, is the room bright enough? If yes, this is because there are many sources of daylight: big windows to the south and west, and ceiling windows to the east. A canopy over the south windows prevents summer sun from heating the room. When the sun is lower in the sky during winter, light can enter without heating the room. Sensors that dim the lights when the sun is bright also help to save energy.

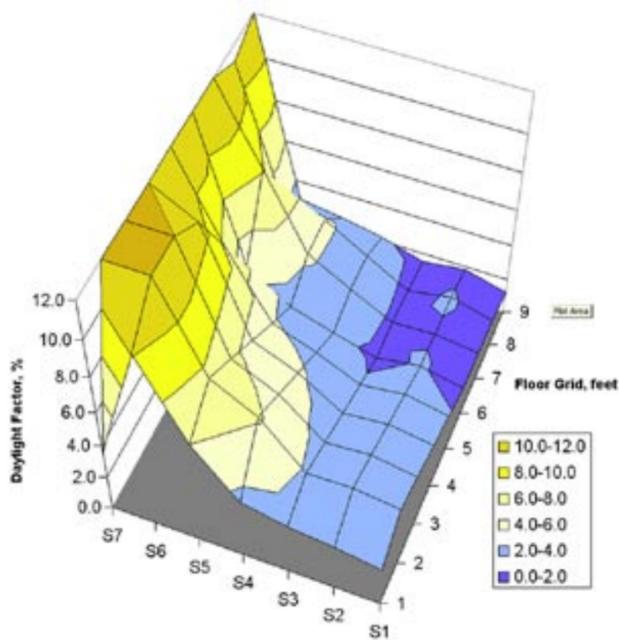
Natural Cooling:

Using the wind and natural movement of air to cool the room

During the warm summer months, the wind frequently blows north and south. Try opening a high and low window on different sides of the room to create cross ventilation. If it is really warm, try opening the high motorized window to create stack ventilation. Ceiling fans also help you to feel cooler.

Daylighting Levels

Daylight is balanced by lighting several sides of the multipurpose room. Notice windows on the south (with shading for the hot summer sun) and high roof monitors on the north.



The different colors on the legend represent the ratio of indoor brightness to outdoor brightness on an overcast day. For example, a measurement of 4 means that the light level inside is 4% of the light level outside. This “daylight factor” is appropriate for the room and gives a good idea of how bright it is outside and how little light we need inside!

Saving Energy:

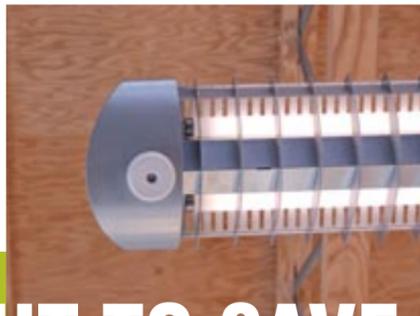
For optimum ventilation, motors open windows that are too high to reach.

Save Energy:

Photocells dim the lights when the sun gets brighter

Sustainably harvested wood:

Maple wood for the floor was harvested from responsibly managed forests certified by the Forest Stewardship Council.



USE DAYLIGHT TO SAVE ENERGY:

Reduced Energy Use:

Buildings consume between 30-40 percent of all the energy in the United States. The less energy we use, the less CO₂ is emitted into the air and the cheaper the energy bills. Rooms with daylighting have dynamic and changing light, providing a richer and more satisfying indoor environment.

The architects and the Seattle Daylighting Lab used physical models and lighting chambers to study the best locations for windows, skylights and roof monitors to let in sun light while reducing glare.

How is Energy Saved? Known as “daylight harvesting,” photocells measure light in the room and dim electric lights when the sun is bright.

USER TIPS:

If the room seems bright enough without the lights – turn them off. This is the biggest step to save energy.

If you’re feeling warm, open windows and turn on the ceiling fan.

If there is plenty of daylight, turn off the lights!